

67,097-024; EH-11034
Serial No. 10/769,169, filed 1/30/04

REMARKS

The Applicant would like to thank the Examiner for the detailed remarks. Claims 25 and 26 have been added. Accordingly, claims 1-26 are pending.

The Examiner rejected claim 6 under 35 U.S.C. §102(e) as being anticipated by *Kidd*. The Examiner argues that *Kidd* teaches all the steps of Applicant's claimed method, including the step of heating a microporous polymer membrane to a predetermined temperature for a predetermined time to reduce the size of micropores in the microporous polymer membrane from a first size to a second size. Respectfully, the Applicant disagrees. *Kidd* discloses a thermal process that involves heating the pre-membrane to induce phase inversion and thereby form the porous membrane. *Kidd* does not even mention first and second micropore sizes, reducing micropore sizes, or using the thermal process to change micropore sizes, as recited in Applicant's claim. Accordingly, claim 6 is properly allowable.

The Examiner rejected claim 15 under 35 U.S.C. §102(e) as being anticipated by *Kidd*. The Examiner argues that *Kidd* teaches all of the features of Applicant's claim, including micropores that have been reduced in size from a first size to a second size by a heat treatment. As explained above, the heating process disclosed in *Kidd* is used to form the membrane and does not reduce the micropore size of the membrane as recited in Applicant's claim. Accordingly, claim 15 is properly allowable.

The Examiner rejected claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over *Spadaccini* taken together with *Kidd*. The Examiner argues that *Spadaccini* discloses all of the features of Applicant's claims except that the membrane is comprised of micropores that have been reduced in size from a first size to a second size by heat treatment. The Examiner argues that it would have been obvious to provide *Spadaccini* with the membrane of *Kidd* because the membrane of *Kidd* would provide gas flowthrough and be resistant to penetration by liquid. Applicant's claim 1 recites that the microporous polymer membrane is comprised of micropores that have been reduced in size from a first size to a second size by a heat treatment. As explained above, *Kidd* does not disclose reducing pore size using a heat treatment. Therefore, the proposed combination does not teach or suggest all of the features of Applicant's claims. Accordingly, claim 1 and its dependents are properly allowable.

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Additionally, there is no motivation to make the proposed combination. The fuel deoxygenator system (10) of *Spadaccini* includes an oxygen permeable composite membrane (42) that is resistant to penetration by liquid and allows oxygen from passing fuel to migrate through. Therefore, since *Spadaccini* already includes a membrane, there is no need or motivation to provide *Spadaccini* with the membrane of *Kidd*. For this additional reason, claim 1 and its dependents are properly allowable.

Regarding claims 3 and 4, claim 3 recites heating the membrane at a temperature above 100°C, and claim 4 recites heating the membrane at a temperature between about 130°C and about 150°C for about two hours. The Examiner contends that it would have been obvious to change the temperature of the pre-membrane at a temperature range recited in Applicant's claims 3 and 4 in order to obtain a membrane having an average pore size of about 0.1 micron to 10 micron. The rejection fails to state a motivation for making the proposed modification. The rejection merely states a desired result of obtaining an average pore size of about 0.1 micron to 10 micron. The desired result is not motivation to choose the particular solution of heat treating with a particular temperature and time. Therefore, the Applicant respectfully requests that the Examiner provide a motivation or withdraw the rejection.

Additionally, there is no motivation to make the proposed modification. For one thing, the heating process of *Kidd* is for forming the membrane, not reducing the micropore size. Furthermore, *Kidd* does not disclose any specific temperatures or times for the heating process. Therefore, there is no teaching or suggestion to adjust temperature/time to control the micropore size. Accordingly, claims 3 and 4 are properly allowable.

The Examiner rejected claims 7-14 and 16-21 under 35 U.S.C. §103(a) as being unpatentable over *Kidd*. The Examiner argues that it would have been obvious to change the temperature of the pre-membrane of *Kidd* at a temperature range cited in Applicant's claims to obtain a membrane having an average pore size of about 0.1 microns to 10 micron. As explained above, the rejection fails to state a motivation because the rejection merely states a desired result, which is not motivation to choose the particular solution. Also as explained above, there is no motivation to make the proposed combination because the heating process of *Kidd* is used to

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form the membrane, not to control the micropore size, and *Kidd* does not even teach any specific temperatures or times. Accordingly, claims 7-14 and 16-21 are properly allowable.

With regard to claims 8, 9, 17, and 18, claims 8 and 17 recite heating above the glass transition temperature of the microporous polymer membrane, and claims 9 and 18 recite heating to a temperature about equal to the glass transition temperature. *Kidd* does not even disclose heating to reduce the micropore size and, therefore, does not teach or suggest heating at a temperature equal to or above the glass transition of the membrane to reduce micropore size. Indeed, *Kidd* does not even mention glass transition temperature. For this additional reason, claims 8, 9, 17, and 18 are properly allowable.

The Examiner rejected claims 22-24 under 35 U.S.C. §103(a) as being unpatentable over *Spadaccini* taken together with *Kidd*. The Examiner argues that it would have been obvious to provide *Spadaccini* with the membrane of *Kidd* to provide for gas flowthrough and resistance to penetration by a liquid. As explained above, the proposed combination fails to disclose a membrane having micropores that have been reduced in size from a first size to a second size by a heat treatment. Furthermore, there is no motivation to make the proposed combination because *Spadaccini* already includes a membrane that provides for gas flowthrough and resistance to penetration of a liquid. Accordingly, claims 22-24 are properly allowable.

New claims 25 and 26 recite additional features that are neither taught nor disclosed by the cited references. No new matter has been added.

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Fees in the amount of \$100 for additional claims may be charged to Deposit Account No. 21-0279 in the name of Pratt & Whitney. Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge the same deposit account for any additional fees or credit the account for any overpayment.

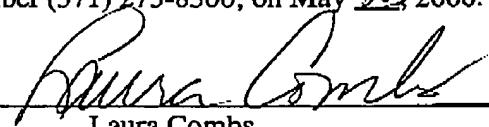
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CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States patent and Trademark Office, fax number (571) 273-8300, on May 23, 2006.


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